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AUTHOR	Bradshaw, Richard A.
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ABSTRACT

Over one-third of high school students in Canada are dropping out of school. However, the advent of multimedia computer technology has increased the potential of career interventions, particularly for at-risk youth. This digest describes such a program entitled Knowledge for Youth About Careers (KYAC). KYAC is based on attribution change theory and self-efficacy theory. Its video scenes model career development skills like information interviewing, networking, and other strategies. In KYAC, students select one of two main characters and then follow the character as he or she ages from 17 to 28 years old by touching their chosen character's face on the computer screen. During scenes, the action stops at key points and small graphic "thought balloons" appear on the screen so as to enhance user identification with characters. Users will actively seek the information in the thought balloons. Approximately two and a half hours of interaction time is available in the main character decision sequences. In addition, 32 hours of classroom and workshop activities reinforce and provide more personal application of the skills. Some 275 youth were used to evaluate the KYAC program; it was found that students sought better ways to resolve problems with learning, math, reading, and other skills and that they discovered good reasons to finish high school, among other findings. (RJM)

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by Richard A. Bradshaw

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ERIC CLEARINGHOUSE ON Counseling And Student Services

ERIC DIGEST

1995 EDO-CG-95-76

Delivery of Career Counseling Services Videodisc & Multimedia Career Interventions

Richard A. Bradshaw

Overview

It is estimated that over one-third of Canada's high-school students will drop out of school. (Employment & Immigration Canada, 1990). This is devastating when one considers that two-thirds of the new jobs created between now and the year 2000 will require qualifications beyond high school (Employment & Immigration Canada, 1989). One of the great challenges to career development professionals is how to motivate this massive "at-risk" youth population (a) to persist with education & training through high school and beyond, and (b) to take responsiblity for, and action toward, their own career development. The advent of multimedia computer technology has increased the potential for "high impact" career interventions. This can be particularly effective for at-risk youth, a population with extremely low motivation to use print-based materials.

Discussion

Knowledge for Youth About Careers (KYAC) is one such interactive, multimedia career program. Pilot-tests with youths aged 13-19 years suggest that it can improve motivation and can instill knowledge of (and skills in) career decision-making, information interviewing, networking, and career planning.

KYAC is based on Weiner's (1984) attribution change theory and Bandura's (1982) self-efficacy theory. The video scenes model career development skills like information interviewing, networking, mentorships, and seeking assistance with learning disabilities. Concerns such as persistence with math and science courses; women in technology, trades, and management occupations; and minority representation in all of the above, are also addressed. In addition to the videodisc, CD-ROM disc, and computer diskettes, program materials include a *Facilitator Manual* and *Participant Workbook* (photocopy master) with 32 hours of classroom & workshop activities, a *Research & Development Handbook*, and a *Facilitator Guide to Scene Playback*. The program operates on IBM PS2s and 486 DOS-based ISA computers

Description of KYAC

In KYAC, students select one of two main characters, (each character then ages from 17 to 28 years old), by touching their chosen character's face on the computer screen (decisions can also be made using a mouse, but at-risk youth prefer touch-screen technology). One character is a young man who has dropped out of high school and is now working as a janitor. The other is a young woman (multiracial black/white) who is having learning difficulties at school and is working part time as a waitress. A "grabber" scene (with rock music) introduces the two characters and the "future" orientation of the program. The next scene to appear is a conversation between the selected character and his or her *future self*. It was found that at-risk youth much prefer this approach to the standard parent/teacher/counselor/'career expert' giving advice. Such conversations occur several times throughout the program. At the conclusion of each scene are two decision choices, represented by animated graphics. Users touch the screen (or click the mouse) to make their selections, and the computer plays an "outcome" scene, many of which have time-delays (e.g., one and a half years later) built into them. In some cases, the computer selects outcome scenes based on probabilities; this allows the program to be more consistent with real life since a given decision can have a variety of outcomes.

During scenes, the action "freezes" at key points, and small graphic "thought-balloons" appear on the screen. These are used (a) to enhance user identification with characters in the scenes, (b) to illustrate ineffective beliefs and attitudes, and (c) to model effective, empowering career beliefs and attitudes. If users touch (or click on) these thought-balloons within two seconds of when they appear, they will hear what the character is thinking. If users do not respond within two seconds, the icon fades and the video continues. In this way, users actively seek the information in the thought-balloons and therefore anticipate and attend to the information. This same principle applies to all of the character decision sequences; users request the outcomes of their own decisions, so they are more alert when the information is presented or when skills are modeled.

Approximately two and a half hours of interaction time is available in the main character decision sequences described above, although users can interrupt their interaction at any time and pick it up on another occasion. In addition, 32 hours of classroom & workshop activities re-

inforce and provide more personal application of the skills, knowledge, and attitudes presented in the video scenes. The program has seven other sections:

WHODUNIT: Information interviews with 44 people who created KYAC using their own careers, which reinforces principles in the video scenes.

WHAT TO YOU THINK?: Re-purposing of the video scenes with multiple-choice questions to promote critical thinking.

CONCEPTS: Allows facilitators to select scenes *according to the concepts* presented.

ACCESS: Allows program administrators to monitor user patterns (which characters, or decisions, or program sections are selected most often).

INFORMATION: Site administrators can enter local resources and contacts for 16 career and support services.

INSTRUCTIONS: An "inquiry mode" which allows users to "touch (or click on) what they want to know about."

PLAYBACK: Allows facilitators to select from a scrolling list specific scenes according to character.

Field Testing KYAC

In total, 275 youth participated in one or more qualitative or quantitative evaluations of KYAC. Participants worked in formative and controlled research settings. The highlights of the last study (including 72 high-school students, 34 of which were "at-risk") are as follows:

- The Career Decision-Making Self-Efficacy Scale (Taylor & Betz, 1983)reflects that the students in this study found better ways to resolve problems with learning, math, reading, writing, exams, listening, concentrating, and remembering; good reasons to finish high school; more assurance regarding choice of occupation; reduced information needs about employment opportunities, training, and job-finding; increased sense of the importance of (a) calling and visiting employers or education/training sites for information interviews, (b) setting up co-op education or work experience placements, (c) persisting with problem-solving, (d) learning how to raise own self-esteem; increased self-confidence and anticipation of enjoyment, and decreased anticipation of hassle and discouragement from the above career tasks; and willingness to devote more hours to the above career tasks.
- Results on the Career Beliefs Inventory (Krumboltz, 1991) indicated greater willingness to try hard despite possible failure, try alternative occupations, and disclose career choices to others; belief that career obstacles could be overcome; and belief that hard work is required for success.
- Additionally, students exposed to KYAC spent more time thinking about themselves and their occupational futures, talked more with other students about their occupational future, were more aware of computer-assisted instruction and other compensatory strategies for overcoming the effects of learning disabilities, and made greated application of information interviewing, networking, cooperative education, and work experience to their own four-year career action plans.

Summary and Conclusions

Multimedia, interactive, career development interventions are particularly useful for at-risk youths, in that they supplement more traditional approaches such as cooperative education, work experience, and computer-assisted career guidance systems. Tools like KYAC are particularly useful for motivating "at-risk" career program participants and for modeling career implementation behaviors.

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Dr. Richard Bradshaw is Senior Psychologist in the Counselling Service of Simon Fraser University, Burnaby, B.C., Canada, and the Project Director for KYAC.

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